



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/976,034

10/15/2001

Woo-sik Eom

1293.1268

1594

21171

7590

04/29/2004

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

PATEL, GAUTAM

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,034

Applicant(s)

EOM ET AL.

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-13 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-13 are rejected under 35 U.S.C. § 102(a) as being anticipated by Lee et al., EPA 1052639 A2 (hereafter Lee).

As to claim 1, Lee discloses the invention as claimed [see Figs. 2-5] including determining linking loss area, and modifying data ID, comprising the steps of:

determining whether a first sector of a current block in which data is to be recorded is a linking loss area, and reading a previous block in response to determining that the first sector is a linking loss area ;

Art Unit: 2655

modifying data type identification information of a last sector of the previous block after completing the reading of the previous block; and

recording the data in blocks starting from the previous block [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

5. As to claim 2, Lee discloses:

recording the data in blocks starting from the current block in response to determining that the first sector of the block is the linking loss area [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

6. As to claim 3, Lee discloses:

recording is stopped when the data is recorded in N ECC blocks [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

7. As to claim 4, Lee discloses:

the modifying comprises modifying the last sector of the previous block from '1b' to '0b'. [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

8. As to claim 5, Lee discloses:

said data type identification information is located in a data type information area formed with a sector information field and a sector number field [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

9. As to claim 6, Lee discloses:

said sector information field is formed by a sector format type field, a tracking method field, a reflectance field, a reserve field, an area field, a data type field and a number-of-layers field [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

10. As to claim 7, Lee discloses:

the sector format type information of one bit position indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows:

a first type of bit indicates a CLV format type; and a second type of bit indicates a ZCLV format type, specified for Rewritable discs [col. 10, line 9 to col. 11, line 18].

11. As to claim 8, Lee discloses:

the tracking method information of one bit position indicates pit tracking or groove tracking as follows: a first type of bit indicates Pit tracking; and a second type of bit indicates Groove tracking, specified for Rewritable discs [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

12. As to claim 9, Lee discloses:

the reflectance information of one bit position indicates whether reflectance exceeds 40 % as follows: a first type of bit indicates that Reflectance is greater than 40%; and a second type of bit indicates that Reflectance is less than or equal to 40% [col. 10, line 9 to col. 11, line 18].

13. As to claim 10, Lee discloses:

the area type information of at least one bit position indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates a Data area; 01 b indicates a Lead-in area; 10b indicates a Lead-out area; and 11 b indicates a Middle area of read-only discs [col. 10, line 9 to col. 11, line 18].

14. As to claim 11, Lee discloses:

the data type information of one bit position indicates read-only data, or the linking data as follows: a first type of bit indicates Read-only data; and a second type of bit indicates Linking data [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

15. As to claim 12, Lee discloses:

the layer number information of one bit position indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit indicates Layer 0 of dual layer disc or single layer disc; and a second type of bit indicates Layer 1 of dual layer disc [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

16. As to claim 13, Lee discloses:

determining whether the first sector of a current block to be recorded is a linking loss area; and recording data in blocks starting from a previous block or the current block based upon the determination whether the first section is in the linking loss area [col. 2, line 41 to col. 3, line 56 and col. 11, line 1 to col. 12, line 30].

ALTERNATE REJECTION

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-13 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al., US patent 6,442,128 (hereafter Lee).

As to claim 1, Lee discloses the invention as claimed [see Figs. 2-5] including determining linking loss area, and modifying data ID, comprising the steps of:

determining whether a first sector of a current block in which data is to be recorded is a linking loss area, and reading a previous block in response to determining that the first sector is a linking loss area ;

modifying data type identification information of a last sector of the previous block after completing the reading of the previous block; and

recording the data in blocks starting from the previous block [col. 4, line 14 to col. 5, line 21].

18. As to claim 2, Lee discloses:
recording the data in blocks starting from the current block in response to determining that the first sector of the block is the linking loss area [col. 4, line 14 to col. 5, line 21].
19. As to claim 3, Lee discloses:
recording is stopped when the data is recorded in N ECC blocks [col. 4, line 14 to col. 5, line 21].
20. As to claim 4, Lee discloses:
the modifying comprises modifying the last sector of the previous block from '1b' to '0b'. [col. 4, line 14 to col. 5, line 21].
21. As to claim 5, Lee discloses:
said data type identification information is located in a data type information area formed with a sector information field and a sector number field [col. 4, line 14 to col. 5, line 21].
22. As to claim 6, Lee discloses:
said sector information field is formed by a sector format type field, a tracking method field, a reflectance field, a reserve field, an area field, a data type field and a number-of-layers field [col. 4, line 14 to col. 5, line 21].
23. As to claim 7, Lee discloses:
the sector format type information of one bit position indicates a constant linear velocity (CLV) or zone constant linear velocity (ZCLV) as follows:
a first type of bit indicates a CLV format type; and a second type of bit indicates a ZCLV format type, specified for Rewritable discs [col. 1, line 36 to col. 2, line 36].
24. As to claim 8, Lee discloses:
the tracking method information of one bit position indicates pit tracking or groove tracking as follows: a first type of bit indicates Pit tracking; and a second type of bit

indicates Groove tracking, specified for Rewritable discs [col. 1, line 36 to col. 2, line 36].

25. As to claim 9, Lee discloses:

the reflectance information of one bit position indicates whether reflectance exceeds 40 % as follows: a first type of bit indicates that Reflectance is greater than 40%; and a second type of bit indicates that Reflectance is less than or equal to 40% [col. 1, line 36 to col. 2, line 36].

26. As to claim 10, Lee discloses:

the area type information of at least one bit position indicates a data area, a lead-in area, a lead-out area, or a middle area for a read-only disc as follows: 00b indicates a Data area; 01 b indicates a Lead-in area; 10b indicates a Lead-out area; and 11 b indicates a Middle area of read-only discs [col. 1, line 36 to col. 2, line 36].

27. As to claim 11, Lee discloses:

the data type information of one bit position indicates read-only data, or the linking data as follows: a first type of bit indicates Read-only data; and a second type of bit indicates Linking data [col. 4, line 14 to col. 5, line 21].

28. As to claim 12, Lee discloses:

the layer number information of one bit position indicates the number of layers in a single layer disc or a dual layer disc as follows: a first type of bit indicates Layer 0 of dual layer disc or single layer disc; and a second type of bit indicates Layer 1 of dual layer disc [col. 4, line 14 to col. 5, line 21].

29. As to claim 13, Lee discloses:

determining whether the first sector of a current block to be recorded is a linking loss area; and recording data in blocks starting from a previous block or the current block based upon the determination whether the first section is in the linking loss area [col. 4, line 14 to col. 5, line 21].

Art Unit: 2655

Other prior art cited

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

- a. Van Den Enden et al. (US. patent 6,115,340) "Modifying the recording process..".
- b. Ko et al. (US. patent 6,724,705) "Recording medium for storing ..".
- c. Oishi (US. patent 6,512,724) "Optical recording ..".

Contact Information

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.



Gautam R. Patel
Primary Examiner
Group Art Unit 2655

April 28, 2004